UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
WASHINGTON 25, D. C.

In cooperation with State, Federal, and Other Agencies

COTTON INSECT CONDITIONS FOR WEEK ENDING AUGUST 26, 1949
(Eleventh Cotton Insect Survey Report for 1949)

There is still time to save thousands of bales of cotton by the prompt and proper use of insecticides to protect bolls from weevil attack in the northern areas where the weevils are now abundant in Virginia, the Carolinas, Georgia, Alabama, Mississipp Tennessee, and Arkansas, and probably also in parts of Texas and Oklahoma. The insecticides generally recognized as effective against the boll weevil when properly applied are calcium arsenate, benzene hexachloride, and toxaphene.

Boll weevils are now destroying much cotton and will damage and destroy bolls during September because many growers are not continuing the use of insecticides as long as they should be used, and other growers have not yet made any effort to check the weevils by the use of insecticides. When the weevils are most abundant is the time when the applications of insecticides are most profitable.

This may be the last report on cotton insect conditions for 1949. Additional reports will be issued if insect infestations of special importance develop.

INSECTICIDES

VIRGINIA: G. M. Boush, Assistant Entomologist, Tidewater Field Station, Holland, reported on August 26: "Toxaphene, the principal cotton insect dust in this area is very hard to obtain."

MISSISSIPPI: E. W. Dunnam reported on August 26: "The poison situation is becoming less critical as time goes on, but some few farmers have not been able to obtain preferred insecticides."

Excerpts from WEEKLY COTTON WEATHER BULLETIN issued by the Weather Bureau, U. S. Department of Commerce, New Orleans, Louisiana, August 25:

ALABAMA: Cotton deteriorating in fair condition; favorable for weevils north; picking slow progress south.

ARIZONA: Cotton growth excellent, offsetting shedding early in month.

ARKANSAS: Early cotton maturing rapidly, slow progress picking. Late cotton progress fair to fairly good; favorable for weevils.

CALIFORNIA: Palo Verde Valley cotton bolls opening.

GEORGIA: Picking cotton slow to fairly active south, slow development elsewhere; favorable for weevils.

LOUISIANA: Cotton continues opening with picking beginning north continued fairly active. Condition good except fairly good Delta counties where heavy rain and weevils have been damaging.

MISSISSIPPI: Late cotton generally very good, early mostly fair with weevil damage heavy.

NEW MEXICO: Cotton mostly good, except severe leaf spots damage Roswell area.

NORTH CAROLINA: Control boll weevil, other insects hampered by wet weather.

OKLAHOMA: Cotton maturing rapidly, picking underway many counties, late further insect damaged east and central, moderately favorable for weevils.

SOUTH CAROLINA: Cotton picking slow; very favorable for weevils.

TENNESSEE: Cotton fair, weevils active.

TEXAS: Heavy fruiting all areas but weevils continued take heavy toll late planted fields, particularly north-central and north-east.

THE TEXAS WEEKLY CROP AND WEATHER BULLETIN, Austin, August 22, stated: "Cotton fruiting continued heavy in the late maturing areas on the High Plains and northern Low Rolling Plains, with no serious damage from insects. In other areas most crops were well advanced and stalks were heavily loaded with grown bolls. Boll weevils continued to take a heavy toll in some late planted fields, however, particularly in northcentral and northeast counties."

BOLL WEEVIL

VIRGINIA: Boll weevil infestations increased rapidly in Nansemond County. G. M. Boush, Assistant Entomologist, Tidewater Field Station, Holland, examined 9 cotton fields on August 26. The average infestation was 91% punctured squares, ranging from 78 to 100%, as compared with an average of 66%, ranging from 42 to 88% the previous week.

NORTH CAROLINA: W. M. Kulash and J. E. Clement reported on August 26: "This week only cotton in the more western part of the state was examined. Inspections showed that this cotton has not been damaged by the boll weevil nearly as seriously as has the eastern crop. Six of the counties inspected were found to have had less than 10% of their squares punctured. In these western counties where infestations were unusually low as compared to the eastern crop, cotton is very young with plenty of squares and few mature bolls. But in some western counties the boll weevil has brought serious damage to the crop. Even in many counties which in previous years have only had very slight weevil infestations, damage this year has been severe. For instance, Cleveland County, one of the states largest cotton-producing counties has never before been seriously infested by the boll weevil. However, infestation counts in undusted cotton of that county this week showed that an average of 77% of the squares have been punctured. In the six counties where square infestations were under 10%, nearly all cotton is young with few mature bolls and plenty of squares. But in most areas - especially in eastern and southern fields, cotton has stopped fruiting, and mature bolls are plentiful. A great deal of cotton is opening, and in many places picking is getting underway."

SOUTH CAROLINA: Cool, damp days and some rain have resulted in a considerable amount of boll rot in some fields of rank-growth cotton. Boll weevils are present in huge numbers in fields of late cotton and are causing considerable damage to small bolls. Weevils continue to move from field to field in search of suitable food. A total of 181 weevils were caught on a 60 square foot exposure migration screen trap located near the Pee Dee Experiment Station, as compared with 326 last week and 176 two weeks ago. The average weevil infestation in 55 fields in 11 north Piedmont counties was 95% punctured squares.

GEORGIA: The cotton crop in the Coastal Plain is mature and past damage from insects, except in the few late fields in the northern area. Reports from the Piedmont indicate that the southern and much of the middle Piedmont are now past the peak of fruiting. In the northern counties poisoned cotton is showing from fair to good control while unpoisoned cotton shows very high infestation levels. In much of the cotton from the middle to the northern Piedmont one or two more poisonings are needed to protect maturing bolls from the very heavy weevil populations present. Weevil infestation was found in all of the 77 fields examined in 33 northwest and northeast counties. The infestation ranged from 1 to 10% in 9 fields, from 11 to 25% in 16 fields, from 26 to 50% in 28 fields, and over 50% of the squares were punctured in 24 fields.

FLORIDA: Eight of the 11 cotton fields examined on August 22 in Alachua, Marion, Lake, and Seminole Counties were free of weevils. In only one of the fields examined was there prospects of serious weevil damage.

MISSISSIPPI: Early-planted cotton is maturing rapidly. However, very little of this cotton that has been properly treated for the control of cotton insects has stopped blooming. In general, early-planted cotton is fruiting later than usual. Late-planted cotton that has been poisoned properly is yet fruiting profusely. Even though the weather has been dry, cotton opening has not been accelerated very much over that of last year.

Last year on this date general migration of boll weevils had just covered all parts of the Delta, whereas this year it covered this same area by August 12. The average boll weevil infestation throughout the Delta this season averaged practically twice that of last year.

TENNESSEE: The survey was picked up where it was left off on August 5, to determine just how far north the weevil had infested cotton fields. The general line of infestation ran barely halfway up into the State, with one exception. The exception was one infestation in Weakley County about 5 miles northwest of Dresden or about 15 miles south of the Kentucky line. The infested squares collected in this field contained larvae almost fully developed. The owner of the infested cotton field told the survey men that weevils had infested his cotton at least one time several years ago sufficiently heavy to require poisoning.

Results of a survey just completed in Tennessee, Kentucky, Illinois, and Missouri are shown in the following tabulation:

TENNESSEE

Counties	Fields Examined	Fields Infested	Percent square infestation	
Carroll	10	0		
Crockett	12	1	20	South edge of county near Bells
Dyer	10	1		
Bigson	10	0		
Lake	10	0		
Lauderdale	7	0		
Madison	3	2	27, 5	12 miles north of Jackson
Obion	10	0		
Weakley	10	1	5	5 miles NW of Dresden
	82	4		

KENTUCKY

Counties	Fields Examined	Fields Infested
Fulton	9	0
Hickman	2	0
	11	0

ILLINOIS

Counties	Fields Examined	Fields Infested
Pulaski	10	0

MISSOURI

Counties	Fields Examined	Fields Infested
Butler	10	0
Cape Girardeau	3	0
Dunklin	10	0
Mississippi	10	0
New Madrid	10	0
Pemiscot	9	0
Scott	8	0
Stoddard	10	0
	60	0

LOUISIANA: The Louisiana Experiment Station reported in Service Leaflet No. 14-19, August 26: "Weather conditions in general were favorable for cotton during the past two weeks. Early and mid-season planted cotton is mature, or about so, with considerable picking in progress. Limited acreages of late-planted cotton are still being poisoned with satisfactory results. The poisoning of such cotton should be continued until early September to make it safe against excessive damage from boll weevil, and possibly bollworm. There are also considerable acreages of late-planted cotton which have not been poisoned adequately that further poisoning would help little or none."

The average boll weevil infestation in 103 fields examined in East Carroll and Madison Parishes was 66% punctured squares, as compared with 59% the past week. Infestations ranged from 26 to 50% in 21 fields and over 50% in 82 fields. Most poisoning programs have been completed in these parishes; however, some fields of youngest cotton will be poisoned for another week or ten days. The first bale of cotton was ginned in Madison Parish on August 22. Picking will be general in oldest cotton within a few days. Conditions have continued very favorable for effective boll weevil poisoning.

ARKANSAS: Charles Lincoln, Extension Entomologist, reported on August 22: "Cotton is maturing rapidly. Boll weevil continues to increase in numbers and to migrate freely. I was in Cross, Woodruff, Jackson, and White counties the week of August 15. In old cotton that has been infested all season most of the squares were punctured despite regular dusting. Squares are scarce. Dusting required only for boll protection. Some young cotton had infestations of around 50%. Heavy dusting may make some more cotton, but it is becoming more of a battle every day. In Cross, Woodruff, and Jackson counties, migration is still hitting previously uninfested fields. Many of these fields require boll protection against this migration. With young cotton more than boll protection may be worthwhile. Frequent scouting is required to spot

this migration in time to save the top crop. It may be wise in some fields to shorten the intervals between applications because of the huge numbers of weevils and heavy migration."

OKLAHOMA: Early-planted cotton is maturing rapidly and picking will be underway in many localities the first of next week. Boll weevil migration continues to be heavy and the infestation has greatly increased in Cleveland, McClain, Garvin and parts of Jefferson Counties that had light infestations until the migration started. Jackson County in the extreme western part of the State had 3 fields infested out of 10 examined. One field had infestation of 56% and 7 weevils were found in 1 bloom, indicating that weevils have migrated for long distances. High weevil infestations were found in all of the 68 fields examined in the eastern part of the State. In the western part of the State, 57 of the 74 fields examined were infested. All of the non-infested fields were from the far western counties with the exception of 4. Fields that have a large number of uninjured bolls should be dusted once or twice to prevent boll injury.

BOLLWORM

LOUISIANA: Bollworm infestations requiring control measures have been observed and reported in Tensas, East Carroll, and Madison Parishes.

ARKANSAS: Light scattered outbreaks of bollworms are still occurring in many sections of the State. The only serious general outbreak is in the Red River Valley.

OKLAHOMA: Bollworm damage varies from heavy to light in most fields. Numerous eggs and small worms were noted in practically all of the 142 fields examined.

NORTH CAROLINA: Bollworm damage continues to be rather serious in many counties throughout the State.

FLORIDA: Bollworms are causing some damage in fields of rank-growing cotton in Alachua and Marion Counties.

COTTON LEAFWORMS

There were no reports of cotton leafworm infestations. Scattered light infestations of leafworms have been previously reported in Calhoun, Matagorda, Victoria, Refugio, and Jackson Counties, Texas, and in Geneva County, Alabama.

MISCELLANEOUS INSECTS

GEORGIA: Joe B. McCrary reported on August 25 that a large beetle, identified by the State Entomologists as one of the bumble flower beetles, was causing damage to cotton bolls in 7 northeastern counties.

NORTH CAROLINA: Red spider infestations are present in many of the older cotton fields, though generally the plants are far enough along that they are not causing damage but are rather serving as a good defoliant.

LOUISIANA: Aphid infestations have developed in many fields in East Carroll and Madison Parishes.

ARKANSAS: Charles Lincoln, Extension Entomologist, reported on August 22: "Cotton aphids are still increasing. Cooler weather is favorable to aphid buildup. To prevent honeydew and sooty mold on open bolls, it is important that these infestations be controlled. Where cotton is to be defoliated, there is not much need to try to control aphids at this late date. Defoliation will remove the source of honeydew, thereby protecting the grade.

"Red spider is abundant in Cross County. Considering Mr. Isely's observations last week, red spider is probably heavy in much of the Delta. Most infestations are along field margins. This late in the season with cotton maturing, control is not necessary in most cases."

FLORIDA: The cotton stainer, Dysdercus suturellus, now occurs in limited numbers in cotton fields as far north as Gainesville, Alachua County.

INSECTS ON IRRIGATED COTTON OF SOUTHWEST

TEXAS: Cotton is opening in the early plantings of the El Paso Valley. Dusting for insect control decreased markedly during the week. Bollworms are continuing to cause damage in some fields. Infestation counts made in 9 fields during the last two weeks showed that the infestation increased in 3 fields, while it remained about the same or decreased in the other 6 fields. The high count of 13 young larvae and 18 eggs was found per 100 terminals. The injurious Hemiptera insect populations in the El Paso area are very low due to the intensive dusting that has been done. Aphid infestation is causing some concern. Honeydew is appearing in considerable proportions in a few fields and spotted infestations of red spider mites have been noted in a number of localities. On account of the maturity of the cotton crop, it does not appear that the infestations will build up sufficiently to cause serious damage.

NEW MEXICO: Edwin J. O'Neal, Extension Entomologist, reported on August 22: "Bollworm still chief pest. Aphids still present with some dusting being done. Mites causing damage in isolated fields in Sierra and Dona Ana Counties with dust being applied for same."

ARIZONA: Large acreages of cotton were dusted for stink bugs and scattered infestations of bollworms in the Salt River Valley. In general the injurious insects are decreasing. Stink bugs and Lygus spp. are still present in some late-planted fields. Red spider mites have been reported in damaging numbers in the Safford Valley. The infestations are spreading rapidly and control measures are being applied. The injurious insect populations in Pinal and Pima Counties have decreased to negligible numbers.

PREPARED AUGUST 31, 1949